

US CLAIMS

1. Aircraft engine comprising a fan casing and a pod comprising, in sequence along the air flow direction, an air inlet structure fixed to the fan casing, at least one fan cowl that can be in an open position and in a closed position and at least one thrust inverter cowl fixed to the fan casing, a front edge of the fan cowl being attached to a back edge of the air inlet structure using axial force transmission means when in the said closed position, in which additional stiffening means are placed in the air inlet structure or between the fan cowl and the thrust inverter cowl.

2. Aircraft engine according to claim 1, in which the additional stiffening means comprise several rigid stiffeners of which one first end is fixed to the air inlet structure close to the axial force transmission means, and a second end is fixed to the air inlet structure close to the location at which the structure is fixed to the fan casing.

3. Aircraft engine according to claim 1, in which the air inlet structure comprises an outer enclosure, an inner enclosure, and stiffeners connecting the outer enclosure (10) and the inner enclosure to each other, the additional stiffening means comprising several rigid stiffeners, of which

a first end is fixed to the stiffeners, at the mid-point along their length, and a second end is fixed to the air inlet structure (6) close to the location at which the structure is fixed to the fan casing.

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4. Aircraft engine according to claim 1, in which the additional stiffener means include complementary elements formed on a front edge of the thrust inverter cowl and on a back edge of the fan cowl, the said complementary elements being arranged so as to be inserted in each other with a small predetermined axial clearance when the fan cowl is closed, to enable transmission of axial forces after compensation of the said clearance.

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5. Aircraft engine according to claim 4, in which the complementary elements comprise several orifices formed on the front edge of the thrust inverter cowl and several studs formed on the back edge of the fan cowl, so as to penetrate into the said orifices when the fan cowl is in the closed position, the orifices and the studs being distributed around the periphery of the engine.

25 6. Aircraft engine according to claim 4, in which the complementary elements comprise a circumferential groove formed on the front edge of the thrust inverter cowl and a stud formed on at least part of the circumference of the back edge of the fan cowl, so as to penetrate into the said

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circumferential groove when the fan cowl is in the closed position.